IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier

versions and listings.

1.   (Currently Amended) An image processing apparatus comprising:

a selector, arranged to select a plurality of feature points on or near a

contour line of a region of interest when a contour of the region of interest in a reference

image sensed at reference time or viewpoint is input;

a memory, arranged to store connectivity information on for storing

a connectivity between the plurality of selected feature points;

a seeker, arranged to seek for seeking a plurality of corresponding

points, which respectively correspond to the plurality of feature points, in an image to be

sought, which is sensed at another time or viewpoint; and

an extractor, arranged to extract a contour between the plurality of

corresponding points as a region of interest of the image to be sought on the basis of the

connectivity information stored in said memory,

wherein said extractor respectively sets as start and end points two

of the corresponding points that have substantially a same connectivity as the selected

feature points, and performs a trace between the start and end points in accordance with a

predetermined set of directions to extract the contour.

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2.   (Original) The apparatus according to claim 1, wherein said selector uses at least some of the plurality of corresponding points as feature points used to extract the region of interest of the image to be sought.

3.   (Original) The apparatus according to claim 1, wherein said selector selects the feature points on the basis of shape information of the contour of the region of interest.

4.   (Original) The apparatus according to claim 1, wherein said selector selects the feature points on the basis of image information on or near the contour line of the region of interest.

5.   (Currently Amended) The apparatus according to claim 1, wherein said extractor sequentially traces pixels with high edge strengths ~~using one of two feature points having connectivity as a start point, and the other as an end~~ point.

6.   (Currently Amended) The apparatus according to claim 5, wherein said extractor performs the trace in two directions by replacing the ~~feature~~ corresponding points as the start and end points with each other, and selects one of trace results.

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7.   (Currently Amended) The apparatus according to claim 6, wherein said selector selects new feature points on the basis of a period where the trace results of the traces performed in the two directions match.

8.   (Currently Amended) The apparatus according to claim 5, wherein said extractor performs masking of neighboring pixels in correspondence with a positional relationship between a point of interest and the end point upon comparing edge strengths of the neighboring pixels at the point of interest [[of]] in the trace so as to determine the set of directions.

9.   (Original) The apparatus according to claim 8, wherein the masking uses a mask corresponding to an angle the point of interest and the end point make with each other.

10.   (Original) The apparatus according to claim 9, wherein the masking limits a field of view of the trace so as to prevent the point of interest from moving away from the end point.

11.   (Original) The apparatus according to claim 8, wherein the masking limits a field of view of the trace so as to make the point of interest always approach the end point.

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12.   (Original) The apparatus according to claim 8, wherein the masking limits a field of view of the trace so as to prevent the point of interest from returning to a previous path thereof.

13.   (Original) The apparatus according to claim 8, wherein the extractor comprises a plurality of sets of masks having different field limitation characteristics, and selectively uses the plurality of sets of masks in correspondence with image information of a trace period.

14.   (Original) The apparatus according to claim 8, wherein the extractor comprises a plurality of sets of masks having different weighting coefficients, and selectively uses the plurality of sets of masks in correspondence with image information of a trace period.

15.   (Currently Amended) An image processing method comprising the steps of:

selecting a plurality of feature points on or near a contour line of a region of interest when a contour of the region of interest in a reference image sensed at reference time or viewpoint is input;

storing connectivity information on a connectivity between the plurality of selected feature points in a memory;

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seeking a plurality of corresponding points, which respectively correspond to the plurality of feature points, in an image to be sought, which is sensed at another time or viewpoint;

respectively setting as start and end points two of the plurality of corresponding points that have substantially a same connectivity as the selected feature points; and

performing a trace between the start and end points in accordance with a predetermined set of directions to extract extracting a contour between the plurality of corresponding points as a region of interest of the image to be sought on the basis of the connectivity stored in said memory.

16.   (Currently Amended) A computer program product stored in comprising a computer readable medium comprising having a computer program code, for an image processing method, said method comprising process procedure code for the steps of:

selecting a plurality of feature points on or near a contour line of a region of interest when a contour of the region of interest in a reference image sensed at reference time or viewpoint is input; .

storing connectivity information on a connectivity between the plurality of selected feature points in a memory;

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seeking a plurality of corresponding points, which respectively correspond to the plurality of feature points, in an image to be sought, which is sensed at another time or viewpoint;

<u>respectively setting as start and end points two of the plurality of corresponding points that have substantially a same connectivity as the selected feature points;</u> and

<u>performing a trace between the start and end points in accordance with a predetermined set of directions to extract</u> ~~extracting~~ a contour between the plurality of corresponding points as a region of interest of the image to be sought ~~on the basis of the connectivity stored in said memory.~~

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